



# NEPA Public Hearing

Replacement of Neil R. Underwood Bridge

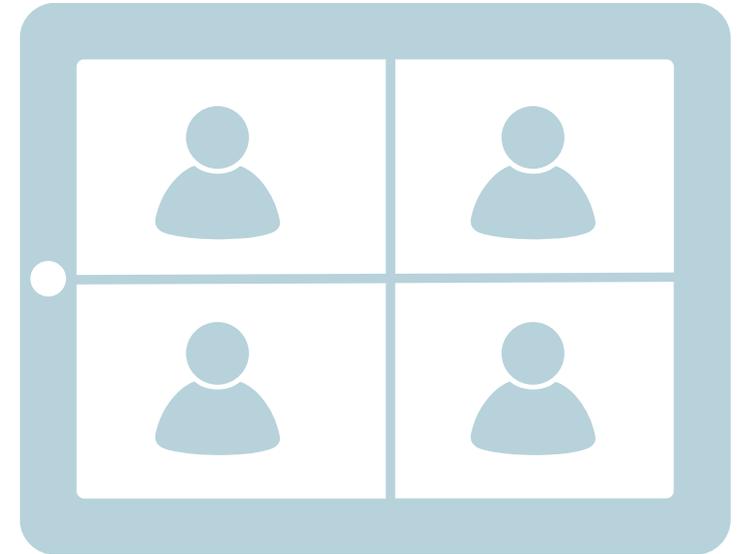
Seabrook-Hampton 15904

April 8, 2021



# Virtual Meeting Format

- All participants are muted
- Please raise hand to verbally provide comment/ask question
- Meeting facilitator will unmute and call on participants
- Provide written comment in Q&A sidebar
- Meeting facilitator will read comments aloud for the record
- For phone participants:
  - ▶ \*6 to mute/unmute
  - ▶ \*9 to raise hand



# Zoom Meeting Functions

*Controls may appear in various locations depending upon the device you are using*

You are viewing Stephanie Dyer-Carroll's screen View Options View

## State-Listed Plant Species Coordination

HAMPTON HARBOR BRIDGE

- State-listed plant species located in dune habitat
- Mitigation plan to be developed with NHHNB to relocate plants away from work area



Dune Habitat on the south side of the bridge



**Audio Settings**

Audio Settings ^

Raise Hand Q&A Leave

# Zoom Meeting Functions

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The screenshot shows a Zoom meeting in progress. At the top, a status bar indicates "You are viewing Stephanie Dyer-Carroll's screen" and "View Options". The main content area displays a presentation slide titled "State-Listed Plant Species Coordination" with the "HAMPTON HARBOR BRIDGE" logo. The slide lists two bullet points: "State-listed plant species in dune habitat" and "Mitigation plan to relocate NHHNB to relocation area from work area". A video feed on the right shows a person in a field, with a name tag for "Marcy Miller". A "Participants (8)" window is open, showing a list of participants: Nick Caron (NC), John Stockton (JS), and Marc Laurin - DOT EM (ML). A yellow callout bubble points to the "Raise Hand" button in the bottom toolbar, which is also highlighted with a yellow box. The bottom toolbar includes "Audio Settings", "Raise Hand", "Q&A", and "Leave".

## State-Listed Plant Species Coordination

HAMPTON HARBOR BRIDGE

- State-listed plant species in dune habitat
- Mitigation plan to relocate NHHNB to relocation area from work area

Participants (8)

Panelists (5) Attendees (3)

NC Nick Caron

JS John Stockton

ML Marc Laurin - DOT EM

Marcy Miller

Raise your hand

Raise Hand

Q&A

Leave

# Zoom Meeting Functions

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The screenshot displays a Zoom meeting interface. At the top, a green status bar indicates "You are viewing Stephanie Dyer-Carroll's screen" and a "View Options" dropdown. The main content area shows a presentation slide titled "State-Listed Plant Species Coordination" with the "HAMPTON HARBOR BRIDGE" logo. The slide lists two bullet points: "State-listed plant species in dune habitat" and "Mitigation plan for NHHB to be implemented from work area". A "Question and Answer" window is overlaid on the slide, showing a question from John Stockton at 10:28 AM: "I think I'm still muted...". Below the question are "Answer live" and "Type answer" buttons. A yellow callout bubble points to the "Type answer" button with the text "Type in a comment or question". To the right of the Q&A window is a video feed of four participants: Marcy Miller, Laura Parete, FHI Plan, and Stephanie Dyer-Carroll. The bottom of the screen shows the Zoom control bar with "Audio Settings", "Raise Hand", "Q&A" (highlighted with a yellow box), and "Leave" buttons.

# Zoom Meeting Functions

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**Please type in your full name**

# Welcome



- Meeting is live and being recorded
- A transcript will be prepared
- Presentation and other materials will be posted to NHDOT project website  
<https://www.nh.gov/dot/projects/seabrookhampton15904/index.htm>

# What is the Purpose of the Hearing?



## Report

the findings of the  
Environmental  
Assessment (EA)



Provide a  
**forum for public  
comments**  
on the (EA)



**Identify  
questions**  
to be answered  
and/or clarified

# How to Comment on the EA?

- Comments received today will be recorded in meeting transcript
- Comments accepted by mail, email or phone through April 23, 2021
  - ▶ Mail to: Jennifer Reczek  
NHDOT  
Project Manager  
P.O. Box 483  
Concord, NH 03302-0483  
(603) 271-3401  
[Jennifer.e.Reczek@dot.nh.gov](mailto:Jennifer.e.Reczek@dot.nh.gov)



# Tonight's Presenters

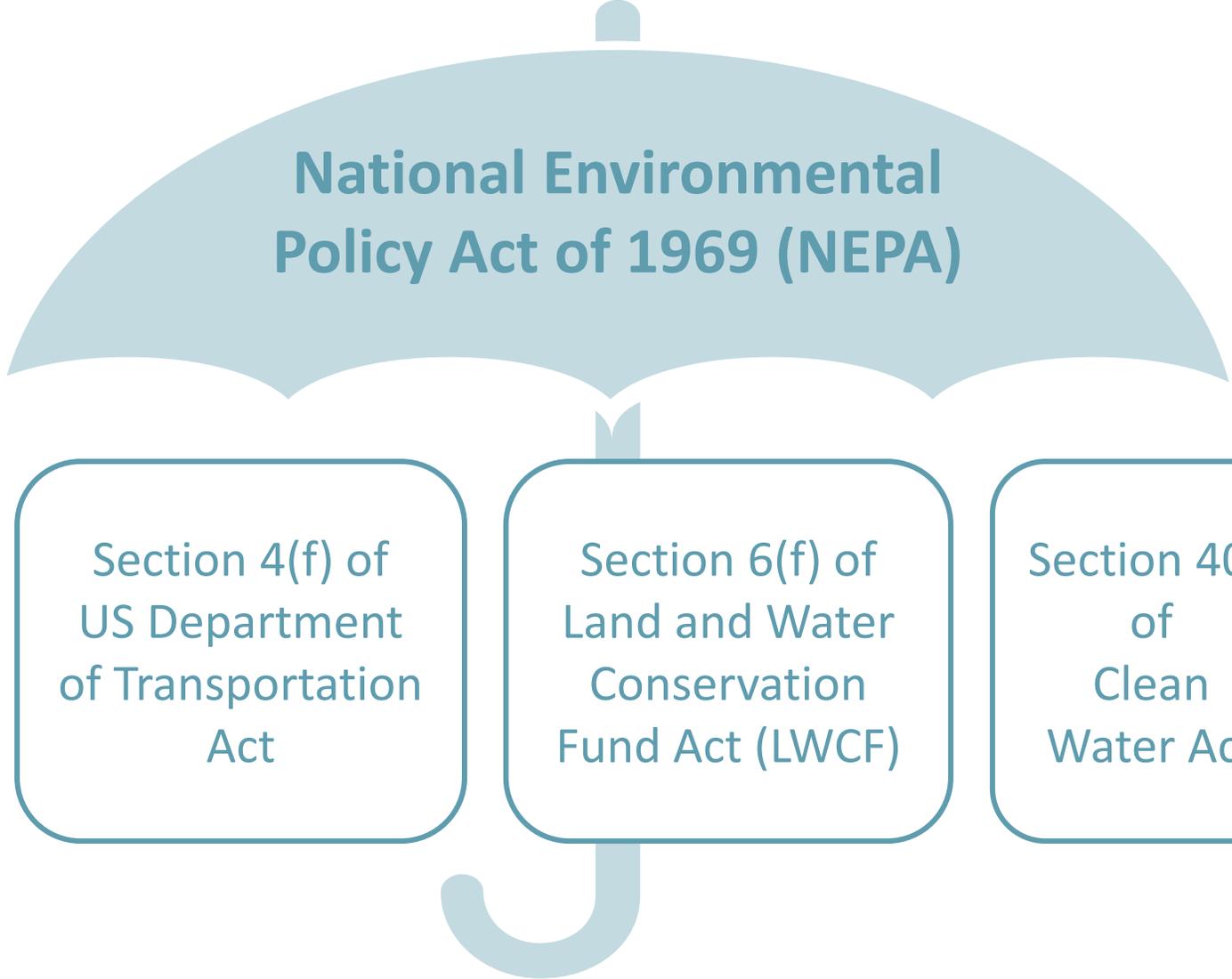


- Jamie Sikora, Environmental Program Manager (FHWA)
- Jennifer Reczek, PE, Project Manager (NHDOT)
- Stephanie Dyer-Carroll, AICP, Environmental and Cultural Resources (FHI)
- Marcy Miller, AICP, Public Involvement Manager (FHI)



# Federal Highway Administration (FHWA) and Regulatory Requirements

# Regulatory Requirements



## National Environmental Policy Act of 1969 (NEPA)

Section 106 of National Historic Preservation Act of 1966 (NHPA)

Section 4(f) of US Department of Transportation Act

Section 6(f) of Land and Water Conservation Fund Act (LWCF)

Section 404 of Clean Water Act

Section 7 of Endangered Species Act (ESA)

# Public Involvement



- Receive comments on Environmental Assessment (EA)
- Evaluate comments to determine significance of impacts
- As appropriate, based on comments received
  - ▶ Revise EA/4(f)
  - ▶ Recommend a Finding of No Significant Impact (FONSI)
- Should substantial concerns be raised, NHDOT and FHWA would evaluate need for elevating environmental review to an Environmental Impact Statement (EIS)



# Project Background

# Public and Agency Coordination



Discussions have informed key decisions throughout the project's development

- Meetings to date
  - ✓ 6 Project Advisory Committee Meetings
  - ✓ 3 Public Informational Meetings
  - ✓ Meeting with maritime users
  - ✓ Meeting with abutters
- Reviewing Agencies
  - ✓ US Coast Guard (USCG)
  - ✓ US Army Corps of Engineers (USACE)
  - ✓ NH Division of Historical Resources (NHDHR)
  - ✓ National Oceanic and Atmospheric Administration (NOAA)
  - ✓ US Fish and Wildlife Service (USFWS)
  - ✓ NH Natural Heritage Bureau (NHNHB)
  - ✓ NH Fish & Game (NHFG)
  - ✓ NH Department of Environmental Services (NHDES)
  - ✓ Additional Environmental Agencies

# Project Site

- Traffic Volumes
  - ▶ 9,800 Annual Average Daily Traffic,
  - ▶ Peak traffic volumes of up to 18,000 vehicles per day
- Land use
  - ▶ Recreation facilities
  - ▶ Residential
  - ▶ Commercial



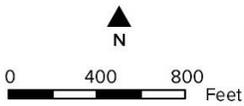
## Hampton Harbor Bridge Project Project Site

Seabrook and Hampton, New Hampshire

NHDOT Project No. 15904

Project Site

Source: NH 2015 Imagery  
NH Granit GIS



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# Existing Bridge



# Existing Bridge Condition

- Bridge is Number #1 on the State's Red List of State-owned bridges



South Approach Looking West



Typical Floorbeam/Girder Connection



North Abutment Bearing

# Project Purpose and Need

## Purpose

- Provide a safe, reliable, and structurally sound crossing
- Improve mobility for the travelling public (vehicles, bicyclist, and pedestrians) and marine users

## Need

- Structurally deficient and functionally obsolete bridge
- Many original mechanical components and outdated electrical system
- Substandard shoulder and sidewalk widths



Bascule span coupler



# Alternatives Evaluated

# What Alternatives Were Evaluated?



- Five alternative were evaluated:
  - ▶ **No Build**
  - ▶ Rehabilitation (superstructure replacement & widening)
  - ▶ Twin Bridge Concept (superstructure replacement + new bascule bridge) – added through coordination with NH Division of Historical Resources
  - ▶ **Replacement with mid-level Bascule bridge**
  - ▶ **Replacement with high-level Fixed bridge (Preferred Alternative)**

All build alternatives meet project Purpose and Need

# No Build Alternative



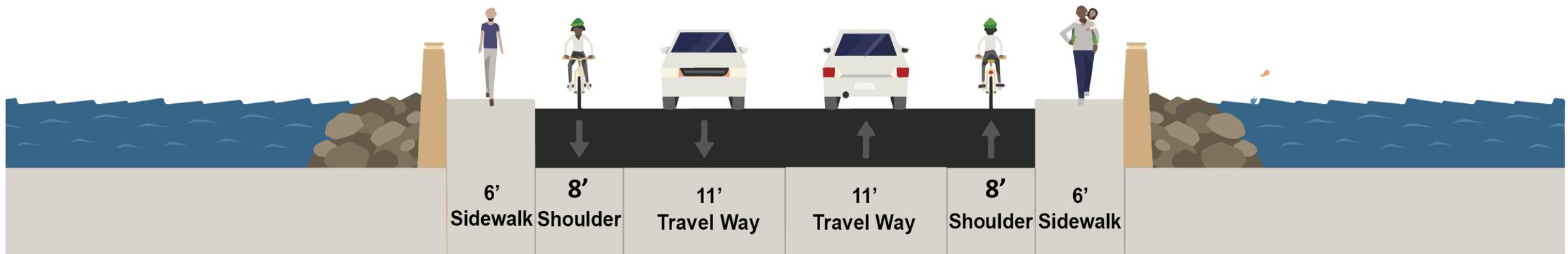
- Required as part of the NEPA process
- Assumes ongoing maintenance of the current bridge and continued deterioration
- Over time, bridge would be downposted for vehicular loads and could eventually be closed
- Does not meet the Purpose and Need

# Typical Roadway Section – Build Alternatives



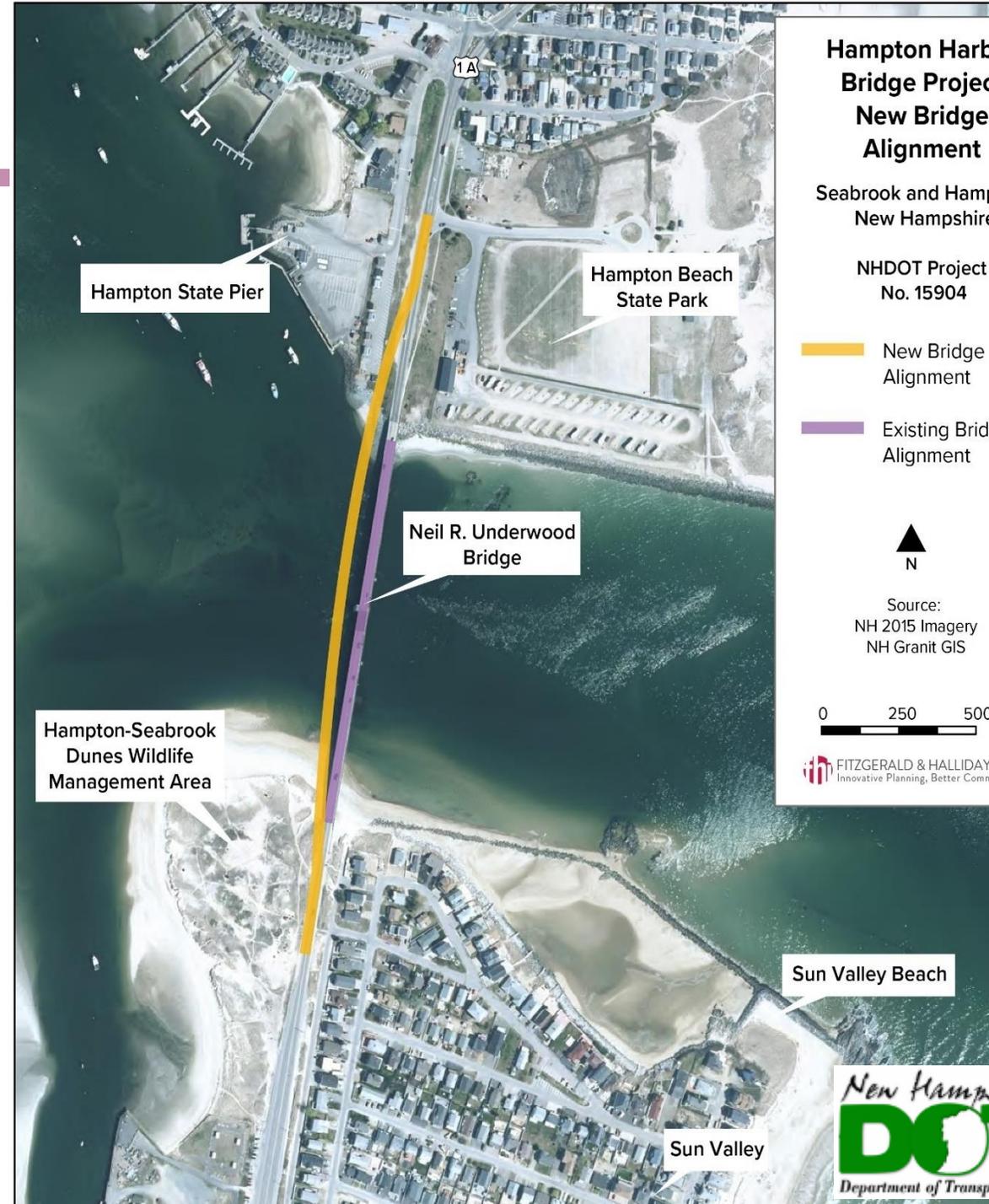
Proposed Section is 50 feet rail-to-rail (currently 26' curb-to-curb w/ 4'-7" sidewalk):

- Two 11' travel lanes
- 8' shoulders
- 6' sidewalks with bumpouts at Piers 2 and 5

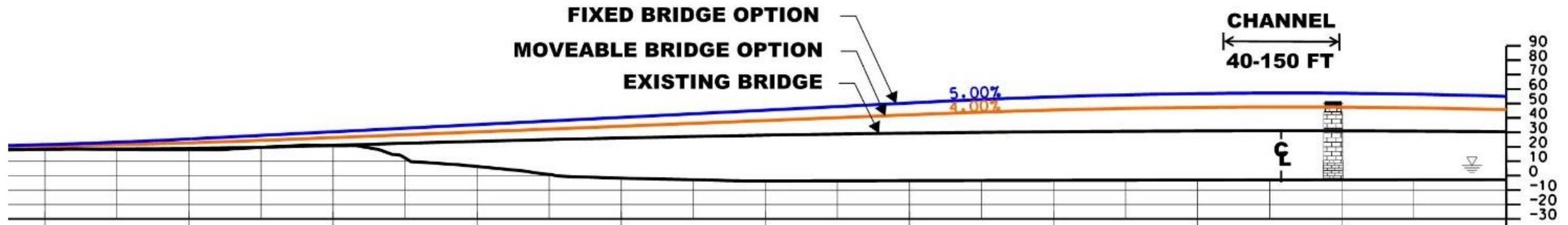


# Alignment of Build Alternatives

- West of existing bridge
- Ties into NH Route 1A north and south of the bridge



# Profile - Navigational Vertical Clearance



Lines shown are roadway surface at center of roadway

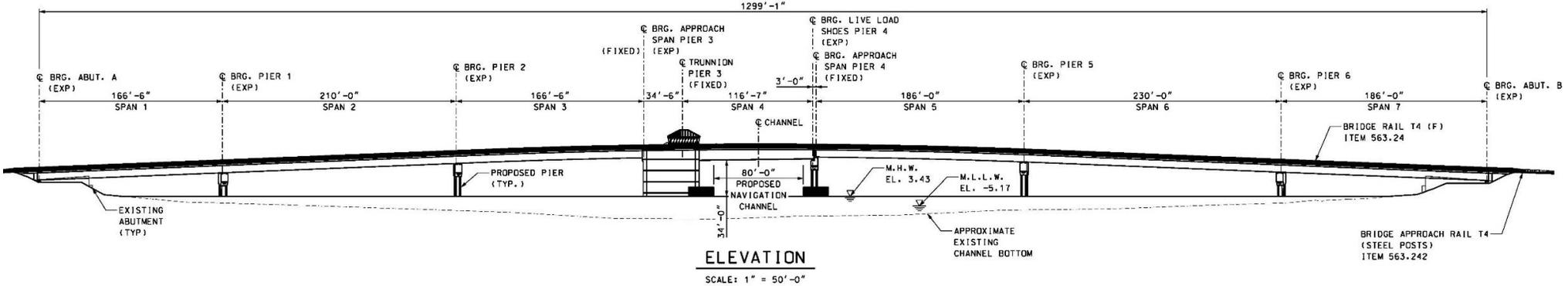
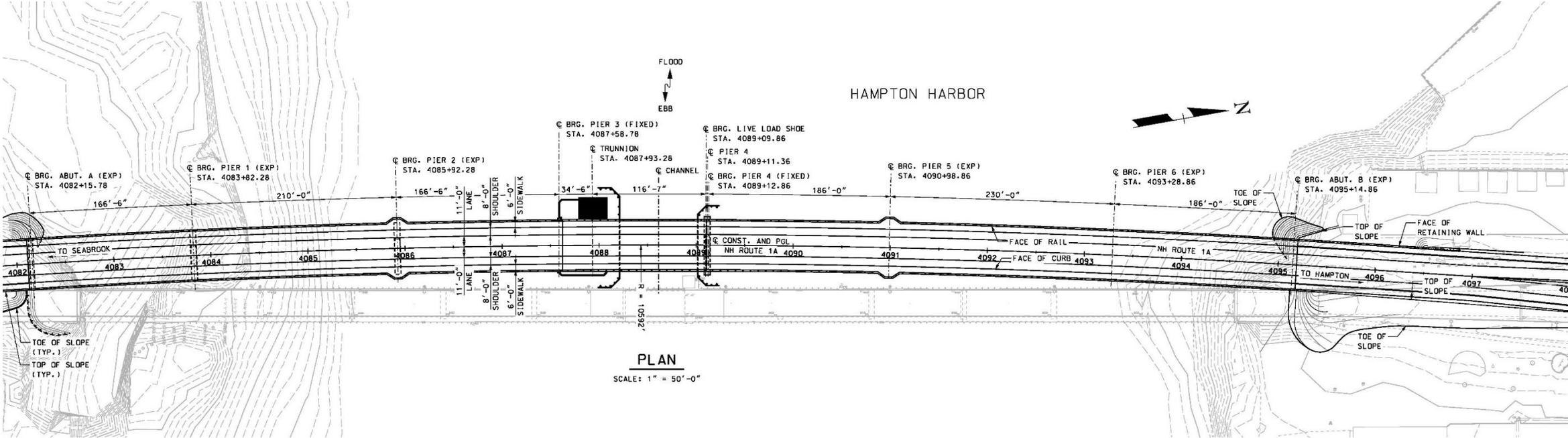
Notes:

1. MHW: Mean High Water
2. Clearances include 3.9' for Sea Level Rise

## Vertical Underclearance at Channel (at MHW):

- Replacement with high-level Fixed bridge = 48'
- Replacement with mid-level Bascule bridge = 34' (closed)
- Existing Bridge = 20' (closed)

# Replacement with Bascule Bridge



# Replacement with Bascule Bridge



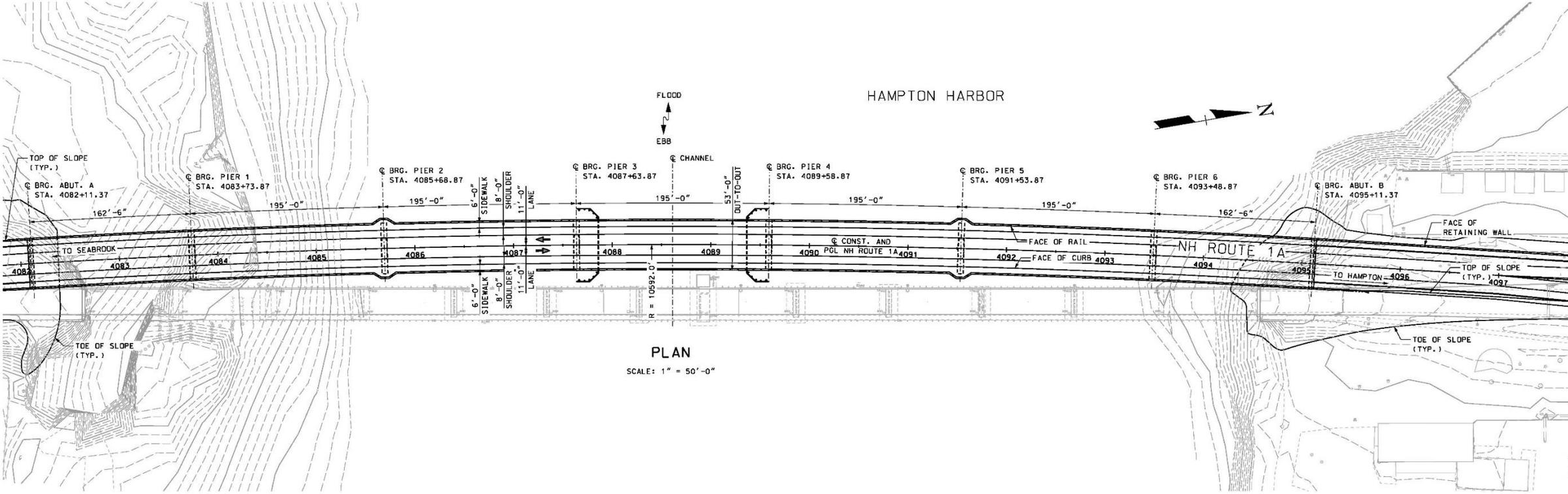
- Modern version of existing bridge
- Vertical underclearance increased to 34'
- Navigational channel width increased to 80'
- 42-month construction duration
- Life cycle cost = \$115 million



# Replacement with Bascule Bridge

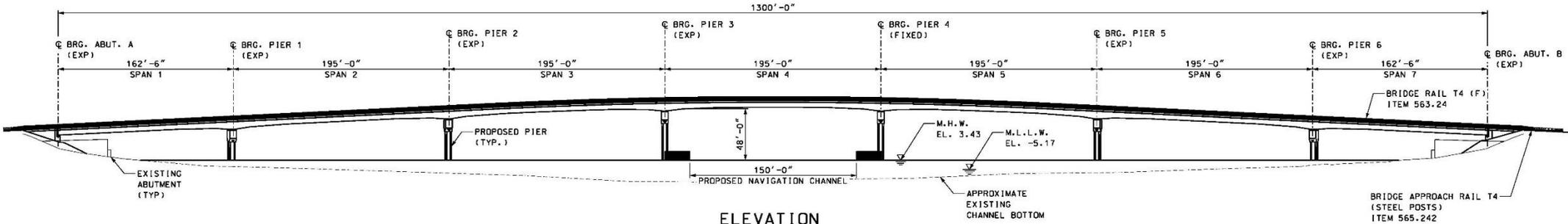


# Replacement with Fixed Bridge



PLAN

SCALE: 1" = 50'-0"



ELEVATION

SCALE: 1" = 50'-0"



# Replacement with Fixed Bridge - Preferred Alternative



- Vertical underclearance increased to 48'
- Navigational channel width increased to 150'
- 36-month construction duration
- Life cycle cost = \$71 million



# Replacement with Fixed Bridge - Preferred Alternative



# Build Alternatives Comparison Summary



	Bascule Bridge	Fixed Bridge
Roadway Width	50'	50'
Approach Roadway Impacts	Westerly	Westerly
No Temporary Bridge Required	●	●
Historic Impact (Adverse Effect on Bridge)	●	●
Impacts to Natural Resources	●	●
Navigational Channel Improvements	●	●
Avoids Impacts to Harbor Channel (No Blasting)	●	●
Accommodates Future Utilities On Bridge	●	●
Reduced Traffic Delays w/ Bridge Openings	●	●
Initial Construction Cost	●	●
Construction Duration	3.5 Years	3 Years



# Affected Environment and Environmental Consequences of Preferred Alternative

## Socioeconomics

- Land Use and Policies
- Economic Conditions
- Environmental Justice

## Built Environment

- Transportation
- Bike/Ped Facilities
- Air Quality
- Noise
- Historic and Archaeological Resources
- Visual Resources
- 6(f) Properties
- Hazardous Materials
- Utilities
- Section 4(f) Properties

## Natural Environment

- Water Quality
- Wetlands
- Wildlife and Habitat
- T&E Species
- Floodplains
- Coastal Zone Consistency
- Climate Change/Resilience

# Land Use, Policies, Socioeconomics and EJ



## Impacts of Preferred Alternative

Would convert portion of Dunes WMA to transportation use

Would convert sliver of State Pier property to transportation use

Would support state, regional and local policies

Short-term adverse impacts to businesses during construction

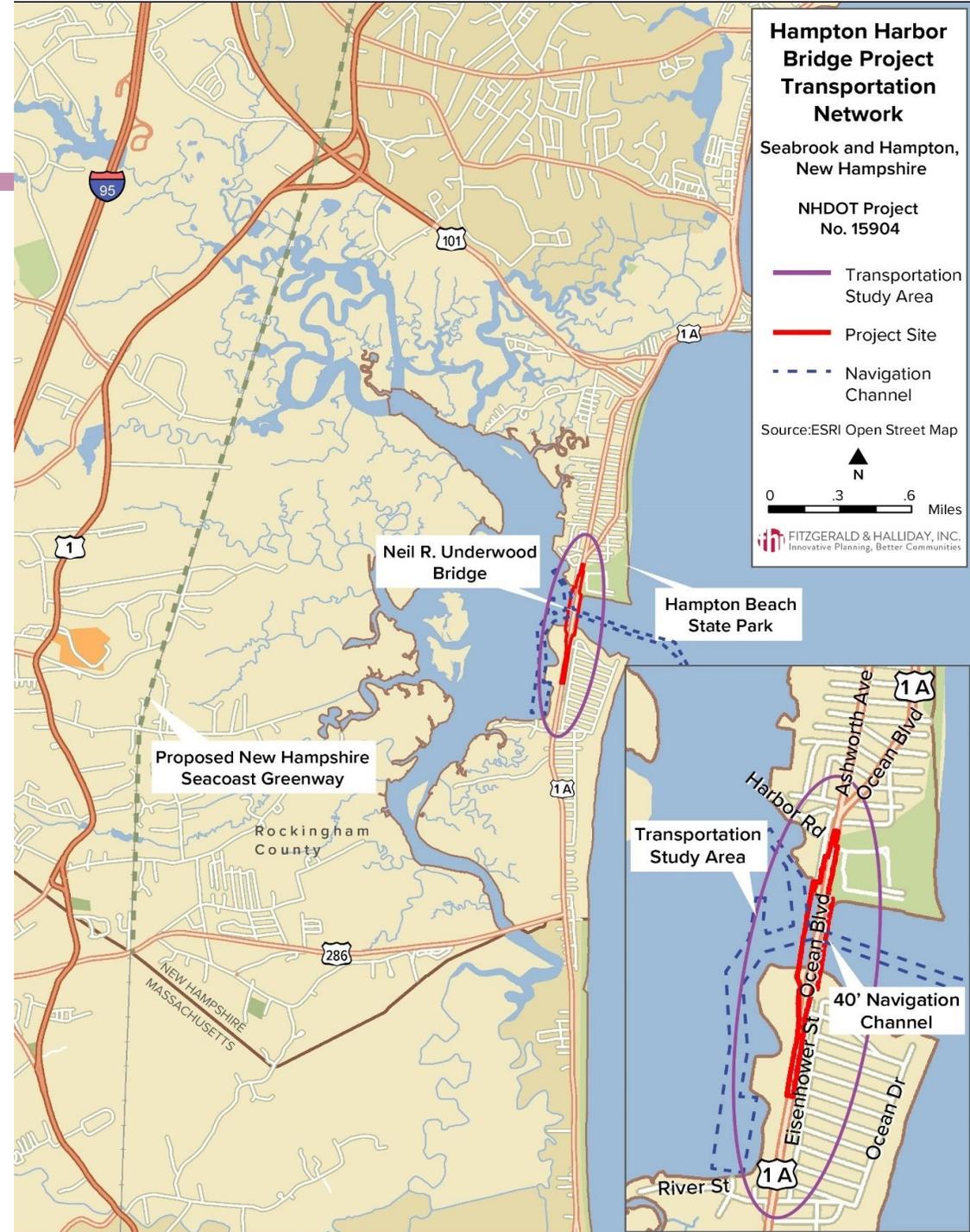
No disproportionately high or adverse impact to EJ communities

## Mitigation

Implementation of time-of-day restrictions and Construction Management Plan to minimize short-term construction-period impacts to adjacent businesses

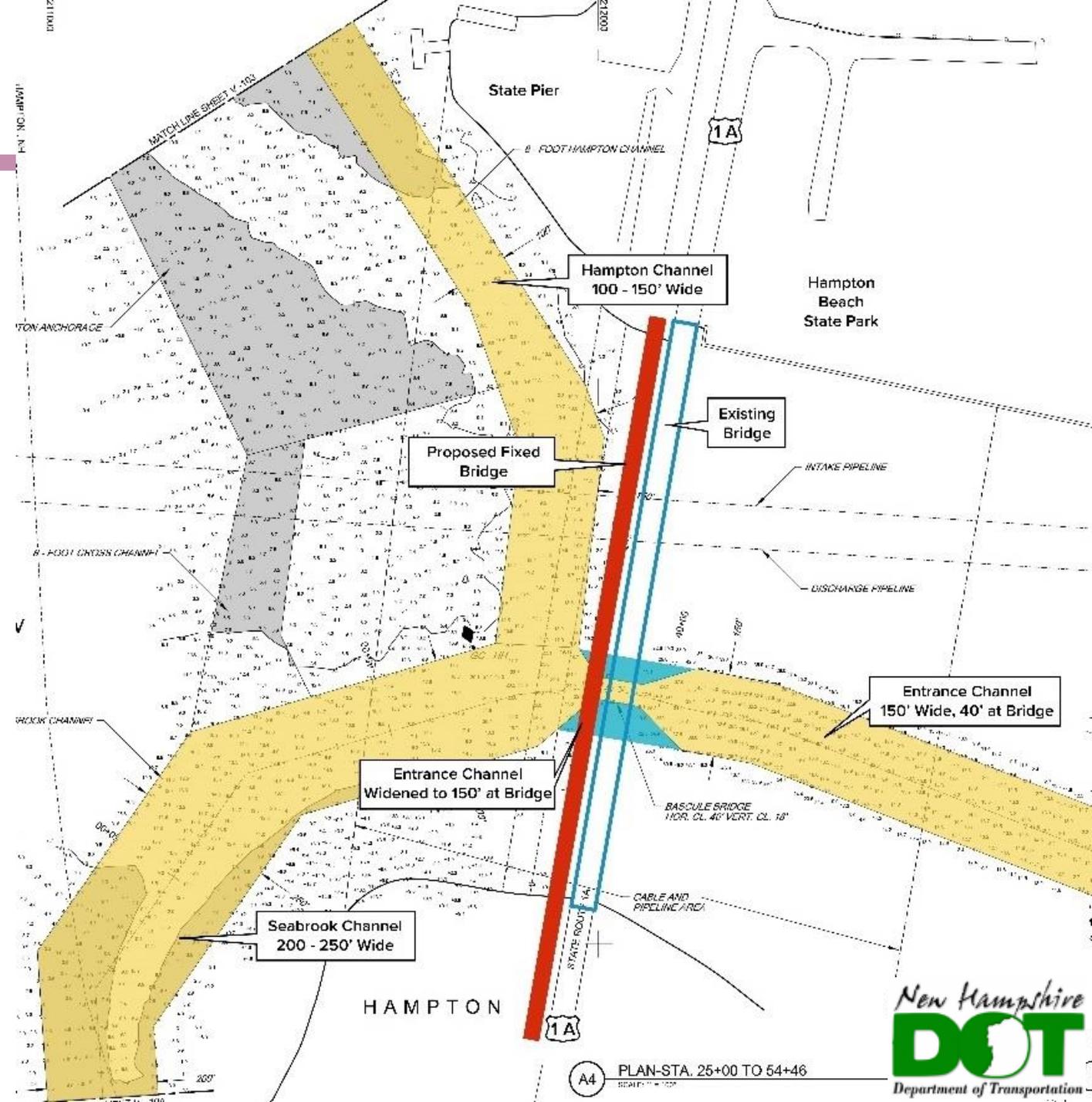
# Transportation Study Area

- Evaluated impacts to:
  - ▶ vehicular circulation
  - ▶ bicycle and pedestrian facilities
  - ▶ navigation



# Channel Impacts

- Widened to 150' at bridge



# Transportation



## Impacts of Preferred Alternative

Traffic delays due to bridge opening eliminated

Wider shoulders and dedicated sidewalks would improve safety and better accommodate emergency vehicle response

Navigational channel widened to 150'

48' vertical clearance

Short-term construction-related impacts to vehicular circulation

Would accommodate *Currituck*

## Mitigation

Notice mariners of construction-period delays and/or vessel restrictions

Implementation of time-of-day restrictions and a Construction Management Plan to minimize short-term construction-period impacts

Shared use path would improve connectivity between the Hampton State Pier and Hampton Beach State Park

# Air Quality and Noise



## Impacts of Preferred Alternative

Air emissions generated by traffic anticipated to be unchanged

No substantial increase in noise over the long-term

Wouldn't approach or exceed Noise Abatement Criteria thresholds

Short-term construction-period impacts to noise sensitive receivers north and south of bridge

## Mitigation

Coordination of bridge construction with community to develop a plan to minimize construction-period noise impacts

## Impacts of Preferred Alternative

Potential for short-term adverse impacts to water quality due to construction activity and dredging

Long-term improvement in water quality due to treatment of stormwater

Would comply with MS4 and other water quality permitting requirements

## Mitigation

Incorporation of Best Management Practices and low-impact in-water construction methods

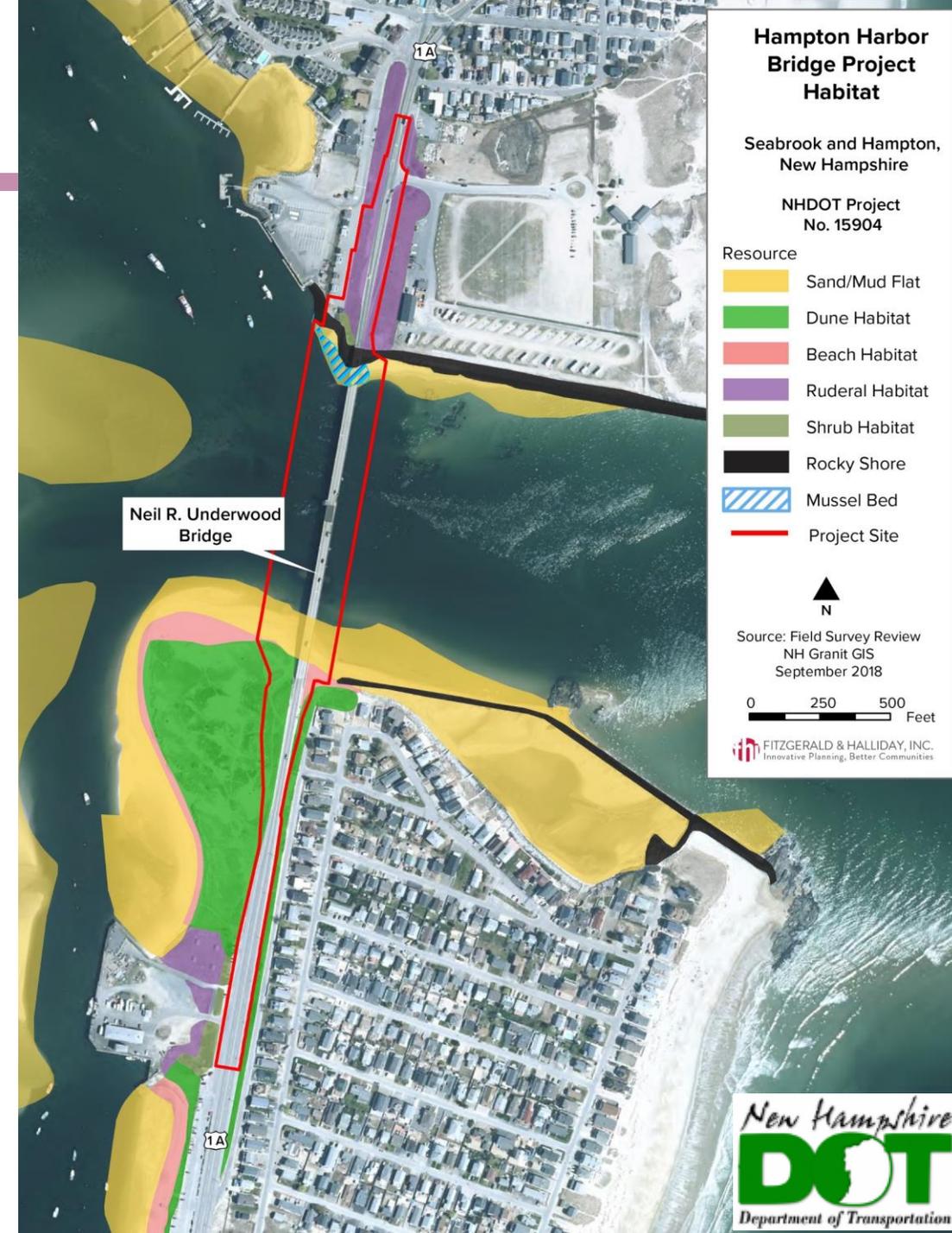
Use of cofferdams to contain suspended sediment during construction

Separation and removal of sediment-laden water during construction

Preparation of a Stormwater Pollution Prevention Plan

# Habitat

- Extensive sand/mud flat south of bridge
- Dune habitat south of bridge
- Blue Mussel bed north of bridge



# Wetlands, Wildlife and Habitat



## Impacts of Preferred Alternative

No impacts to vegetated tidal wetlands or eelgrass

Impacts to Blue Mussel bed on north side of bridge

Disturbance of .11 acres of channel bottom habitat due to dredging

Permanent loss of .18 acres of channel bottom habitat due to new structures

Potential to restore up to .29 acres of channel bottom habitat due to removal of riprap

Temporary channel bottom impacts conservatively estimated at 7 acres

# Wetlands, Wildlife and Habitat



## Mitigation

Mitigate net loss of channel bottom habitat through New Hampshire Aquatic Resource Mitigation (ARM) Fund In-Lieu Fee Program

Restrict in-water work to November 15th-March 15th, as recommended by NOAA NMFS

Use of cofferdams to contain suspended sediment during construction

Separation and removal of sediment-laden water during construction

Preparation of a Stormwater Pollution Prevention Plan

Additional coordination with regulatory agencies during final design and permitting to establish final mitigation

# Threatened and Endangered Species



## Impacts of Preferred Alternative

Temporary and permanent impacts to nesting and foraging habitat of Piping Plover; finding of “May Affect, and is Likely to Adversely Affect” Piping Plover

Temporary impacts to foraging habitat of Red Knot; finding of “May Affect, but Not Likely to Adversely Affect” Red Knot

Temporary impacts to foraging habitat of Roseate Tern; finding of “May Affect, but Not Likely to Adversely Affect” Roseate Tern

Finding of “No Effect” to Northern Long-Eared Bat

Finding of “May Affect, but Not Likely to Adversely Affect” Atlantic Sturgeon, shortnose sturgeon and four species of sea turtles

Potential impacts to six state-listed plant species

# Threatened and Endangered Species



## Mitigation/Conservation Measures

Restrict in-water work to November 15th-March 15th

Relocate listed plant species outside of project footprint

Construction-period measures could include contractor education, the use of silt fencing, speed limits on construction vessels, slow starts when driving drilled shafts, and light shielding

Implementation of slope stabilization measures adjacent to the bridge and roadway on the southwest side of the roadway to prevent erosion

Use of stone chinking within the riprap to prevent void spaces from attracting rodents and other mammals that may prey upon the receptor organisms

# Floodplains, Coastal Zone & Resilience



## Impacts of Preferred Alternative

No substantial increase in fill material in Hampton Harbor Inlet

Not anticipated to exacerbate local flooding

Anticipated to be consistent with NHDES coastal zone policies

Formal Coastal Consistency determination will be prepared during permitting phase

Design considers Intermediate-High range from 2014 STAP Report

Wouldn't contribute to Sea Level Rise or storm surge in the area

## Mitigation

No mitigation would be necessary

# Historic Resources

- Neil R. Underwood Bridge (NR eligible)
- Hampton Beach Cottages Historic District (NR eligible)
- 197 Ashworth Avenue (NR eligible)
- Eastern Railroad Historic District (NR eligible)



## Hampton Harbor Bridge Project Area of Potential Effect and Historic Resources

Seabrook and Hampton,  
New Hampshire

NHDOT Project No. 15904

— Area of Potential Effect (APE)  
— Project Site

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Source: National Register, Field Survey



# Historic and Archaeological Resources



## Impacts of Preferred Alternative

Adverse effect to NR-eligible Neil R. Underwood Bridge and potential loss of bridge type in NH

No adverse effect to Hampton Beach Cottages Historic District

No effect to Eastern Railroad Historic District, 197 Ashworth, 266 Portsmouth Avenue or 54 River Street

## Proposed Mitigation

Market bridge for relocation

Develop interpretive panels to be mounted in vicinity of bridge describing history and significance of Neil R. Underwood Bridge and mechanical functions of bascule bridge type

Develop website with links to information on bascule bridges

Conduct archaeological survey, including monitoring, as needed if ground disturbance occurs in area of archaeological sensitivity north of bridge

Develop video(s) focused on the history and function of bascule bridges in NH

# Visual Resources



## Impacts of Preferred Alternative

Minor adverse impacts to visual quality due to changes to Eisenhower Street, State Pier, and State Park viewsheds

## Mitigation

Face retaining walls with ashlar form liners to blend with surroundings

# Section 4(f) and Section 6(f)

- Section 6(f) of US Land and Water Conservation Fund Act of 1965 protects recreational properties funded through the Act
- Section 4(f) of US Department of Transportation Act prohibits approval of project that uses land from significant park, recreation area, wildlife and waterfowl refuge, or historic sites of national, state, or local significance unless no feasible and prudent alternative



# Section 4(f) Resources



## Impacts of Preferred Alternative

Section 4(f) use of Neil R. Underwood Bridge

No Section 4(f) use of Hampton Beach Cottages Historic District or 197 Ashworth Avenue

No Section 4(f) recreational use of Hampton Beach State Park, Dunes WMA, Sun Valley Beach, or Harborside Park

Section 4(f) *De Minimis* impact finding for recreational impacts at Hampton State Pier

## Mitigation

Mitigation for replacement of historic bridge as noted above under Historic Resources

# Section 6(f) Resources



## Impacts of Preferred Alternative

Section 6(f) conversion of portion of Hampton State Pier

## Mitigation

Provision of pedestrian path under north side of bridge as mitigation for Section 6(f) conversion of portion of State Pier property

# Hazardous Materials & Utilities



## Impacts of Preferred Alternative

Potential for disturbance of hazardous materials sites in the vicinity of the project site anticipated to be minimal

Demolition of bridge and pump house could disturb Asbestos Containing Materials (ACMs) and Lead-Based Paint (LBP)

Relocation of water, sewer and gas lines required prior to construction

No long-term impacts to utility service

Fixed bridge could accommodate utilities placed by others

## Mitigation

Address Limited Reuse Soils (LRS) through NHDOT procedures in accordance with NHDES rules

Develop Soils Management Plan for LRS

Coordinate with NHDES and follow guidelines regarding handling of ACMs and LBP

Coordinate with utility providers prior to initiation of construction

# Secondary and Cumulative Effects



## Impacts of Preferred Alternative

Potential cumulative adverse impact to traffic if construction overlaps with Ocean Boulevard project

Cumulative beneficial impact to pedestrian circulation with Ocean Boulevard Project

Cumulative beneficial impact to navigation when considered together with Hampton Harbor Federal Navigation Project

Potential short-term cumulative adverse impact to channel bottom habitat with Hampton Harbor Federal Navigation Project

Potential short-term cumulative adverse impact to water quality with Ocean Boulevard Project

Long-term cumulative beneficial impact to water quality with Ocean Boulevard Project due to stormwater treatment

Adverse cumulative effect to historic properties with NH 1B New Castle-Rye Bridge Project; potential loss of bridge type

## Mitigation

Preparation of Construction Management Plans for both projects

Potential adverse impacts to water quality minimized through BMPs and preparation of Stormwater Pollution Prevention Plan

Adverse cumulative effect to historic properties being addressed through Section 106 consultation; mitigation measures will be finalized and documented in Memorandum of Agreement

# Next Steps

# Next Steps – Preliminary Design



To move from Preferred to Selected Alternative:

- Must conclude the following:
  - ▶ Identification of potential mitigation measures for loss of historic bridge and execute Memorandum of Agreement
  - ▶ Formal consultation with USFWS regarding potential adverse effects to avian species
  - ▶ Consultation with NOAA regarding Essential Fish Habitat Assessment
  - ▶ Identification of property impacts to State Pier for 6(f) coordination and mitigation
- Finalize EA/4(f), as appropriate, based on comments received
- FHWA concludes NEPA

# Next Steps – Permitting



To move from Selected Alternative to Construction:

- Prepare permits and obtain approvals
  - ▶ USACE Section 10/404 - for work in navigable waters
  - ▶ NHDES Section 401 – Water Quality Certification
  - ▶ USACE Section 408 Concurrence – for alteration of a USACE project
  - ▶ NHDES Wetland Permit with Vulnerability Assessment
  - ▶ NHDES Shoreland Permit
  - ▶ USCG Bridge Permit - modification to bridge over navigable waters
  - ▶ Coastal Zone Management Act (CZMA) Compliance – for work in state’s Coastal Zone
  - ▶ Conversion of 6(f) property approval from National Park Service

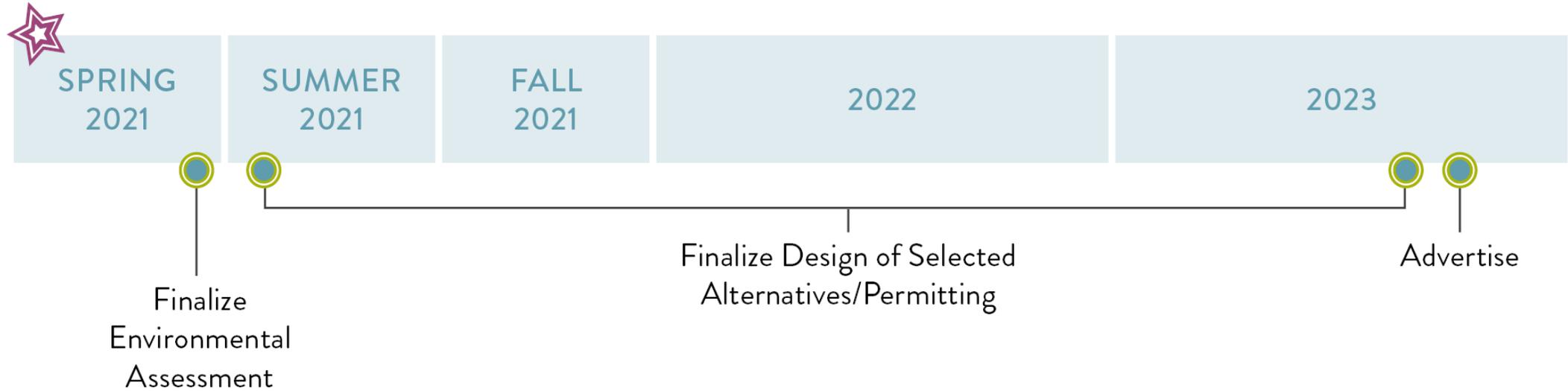
# Next Steps – Final Design



To move from Selected Alternative to Construction:

- Finalize all necessary mitigation measures
- Transfer property rights between State entities
- Complete roadway design, drainage and stormwater treatment
- Coordinate utility relocations
- Complete final design of the bridge and roadway approaches

# Schedule



 Project Milestone

 NEPA Public Hearing



Jennifer Reczek  
NHDOT  
Project Manager  
P.O. Box 483  
Concord, NH 03302-0483  
(603) 271-3401  
[Jennifer.E.Reczek@dot.nh.gov](mailto:Jennifer.E.Reczek@dot.nh.gov)

Comments?